



Reply under 37 CFR 1.116
- Expedited Procedure -
Technology Center 2800

PATENT

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6-18-03

J. Carter

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE

APPLICATION OF: Akihiro Shimotsu

SERIAL NO.: 09/771,273

FILED: January 26, 2001

FOR: FERRULE FOR AN OPTICAL FIBER
AND MANUFACTURING METHOD
THEREOF

EXAMINER: J. Doan

ART UNIT: 2874

ATTORNEY DOCKET NO.: A0-234 US

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

AMENDMENT UNDER 37 CFR 1.116

In response to the Office Action of April 16, 2003, please amend the above-identified application as follows: cancel claims 1, 2 and 7; amend claims 3, 6, 8, 9, 10 and 15 and add claim 20, as shown below.

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In the Claims:

Claim 1 (cancelled)

Claim 2 (cancelled)

Claim 3 (currently amended): A ferrule for an optical fiber connector comprising: a capillary having a pair of opposing ends, an outer surface extending between the opposing ends and a hole extending between the opposing ends for insertion of an optical fiber strand therein;

a flange molded onto the capillary outer surface intermediate the capillary opposing ends such that the capillary outer surface proximate each opposing end is not covered by the molded flange; and The ferrule of claim 1, further comprising

a recess portion and a complementary projecting portion extending into the recess portion, the recess portion and projecting portion being formed at an interface between the capillary outer surface and the flange.

Claim 4 (original): The ferrule of claim 3, wherein the recess portion is formed in the capillary outer surface and the projecting portion is formed integral with the flange.

Claim 5 (original): The ferrule of claim 2, wherein the recess portion is formed integral with the flange and the projecting portion is formed in the capillary outer surface.

Claim 6 (currently amended): The ferrule of claim 4, wherein the flange has a cylindrical outer surface comprising a large diameter portion and a small diameter portion.

Claim 8 (currently amended): A method for manufacturing a ferrule for an optical fiber connector comprising the step of:
molding a flange onto an outer surface of a capillary intermediate opposing ends of the capillary such that the capillary outer surface proximate each opposing end is not covered by the molded flange; The method for manufacturing a ferrule according to claim 7, further comprising the steps of:

forming a recess portion in the outer surface of the capillary prior to molding; and

forming, integral with the flange, a complementary projecting portion that extends intimately into the recess portion of the capillary outer surface during molding of the flange.

Claim 7 (currently amended): The method for manufacturing a ferrule according to claim 7, further comprising the steps of:

forming a projecting portion in the outer surface of the capillary; and
filling a space surrounding the projecting portion with a molding material during molding.

Claim 10 (currently amended): The method for manufacturing a ferrule according to claim 7, wherein said capillary is provided of one material and the flange is molded of a different material.

Claim 11 (previously added): The method for manufacturing a ferrule according to claim 10 wherein said capillary is provided of a hard material and the flange is molded of a softer plastic material.

Claim 12 (previously added): The method for manufacturing a ferrule according to claim 10 wherein said capillary is provided of a material such as zirconia.

Claim 13 (previously added): The method for manufacturing a ferrule according to claim 10 wherein said flange is molded of a material including resins such as PBT containing glass fiber, poly-etherimide and a liquid crystal polymer containing glass fiber.

Claim 14 (previously added): The method for manufacturing a ferrule according to claim 10 wherein said capillary is provided of a material such as zirconia.

Claim 15 (currently amended): The ferrule of claim 10 wherein said capillary and said flange comprise different materials.

Claim 16 (previously added): The ferrule of claim 15 wherein said capillary comprises a hard material and the flange comprises a softer plastic material.

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Claim 14 (previously added): The ferrule of claim 15 wherein said capillary comprises a material such as zirconia.

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Claim 16 (previously added): The ferrule of claim 15 wherein said flange comprises a material including resins such as PBT containing glass fiber, poly-etherimide and a liquid crystal polymer containing glass fiber.

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Claim 16 (previously added): The ferrule of claim 18 wherein said capillary comprises a material such as zirconia.

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Claim 20 (new): The ferrule of claim 17 wherein the flange is molded from a plastic material.

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